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CONFERENCE ON DISARMAMENT

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AUSTRALIA AND NEW ZEALAND

VERIFICATION OF A COMPREHENSIVE TEST BAN

Summary

New Zealand and Australia share a common commitment to the achievement of a comprehensive ban on nuclear testing. The resolution submitted jointly by Australia and New Zealand to last year's General Assembly emphasises that:

> "An end to nuclear testing by all states in all environments for all time is an essential step in order to prevent the qualitative improvement and development of nuclear weapons and their further proliferation, and to contribute, along with other concurrent efforts to reduce nuclear arms, to the eventual elimination of nuclear weapons".

2 Despite overwhelming endorsement in the United Nations of the call for the early achievement of a CTB, there has been little substantive progress towards this goal. New Zealand and Australia share the sense of frustration felt by many countries that the major achievements of recent years in disarmament and arms control have not been matched by comparable progress on a nuclear test ban. The two countries saw the Partial Test Ban Treaty Amendment Conference as a good opportunity to discuss in depth ways of furthering the objective of a CTBT, particularly on the important issue of verification. This paper was originally submitted jointly to the Conference as a positive and constructive contribution to its discussions.

3 The achievement of an effective CTBT is of course a global concern, and the need for verification clearly is not confined to the existing nuclear weapons states. New Zealand and Australia firmly believe that a CTBT has an essential role in preventing the horizontal and vertical proliferation of nuclear weapons. The achievement of a verifiable nuclear test ban would considerably strengthen the non-proliferation regime based on the NPT, IAEA safeguards and nuclear free zones.

Verification Requirements

4 One fundamental argument that has been put forward against a CTBT is that a nuclear test ban would not be verifiable. The Governments of Australia and New Zealand do not accept this view. Substantial scientific evidence is now available establishing the feasibility of verifying a nuclear test ban, particularly through seismic monitoring. It is technically possible to detect underground nuclear tests with a high degree of confidence down to very low levels.

5 In the view of New Zealand and Australia the development of an effective verification mechanism is an important part of the process of creating an effective, widely supported, and verifiable CTBT. Effective verification is however only part of the whole process which will need to involve a political will on the part of a number of key players before it can be achieved. In the meantime we see great value in taking as far as we can the development of an effective verification mechanism.

Seismic Verification Techniques

6 The two countries consider that the work carried out within the Conference on Disarmament by the ad hoc Group of Scientific Experts (GSE) is of fundamental importance in demonstrating that technical means exist for the verification of a CTBT.

7 The first report of the ad hoc group in 1978 (CCD/558) presented the results of a study of the detection ability of a hypothetical global network (Network III (SRO)) of digital broad-band seismographs located at then existing seismograph stations. It was estimated that this network (of at least two sections) would have a 90 per cent chance of detecting an event of magnitude 3.8 to 4.2 (or greater) in the northern hemisphere and magnitude 4.0 to 4.6 (or greater) in the southern hemisphere. Magnitude 4.0 corresponds to an explosion of less than ten kilotons in most geological environments and much less than this level in some environments.

8 The third report of the group (CD/448) in 1984 pointed to significant developments in seismic instrumentation, including the installation of more seismic arrays. Since that date, there have been still greater improvements, particularly in response to the initiatives of the ad hoc group. While further study is needed to evaluate accurately the capability of the present global network, it is clearly very close to that projected in 1978, and may well be significantly better.

GSETT-2

9 New Zealand and Australia both strongly support, and are participating in, the second technical test on the global exchange and analysis of seismic data being conducted by the group (GSETT-2). Phase 3 of this test involving world wide data exchanges for a period of 42 consecutive days has just concluded. The two countries have contributed data from monitoring stations in Australia and New Zealand, and also from stations as far apart as the Cook Islands and Antarctica. All together, this seismic monitoring system covers a major part of the southern hemisphere, and represents an essential component in the global scope of the experiment.

10 Detailed evaluation of the test, which will take place in Phase 4 and be presented in the group's report, will be needed to assess the extent to which global seismicity has been monitored. However, it is already clear that from an operational point of view the test has been very successful. Modern communications systems have provided efficient means of data transmission from stations to international centres. At these centres, large computing facilities accomplished the huge task of assembling the mass of data pouring in from the network, and daily bulletins incorporating such data have generally been available within seven days. Requests from individual states for data to assist their national verification studies were responded to promptly by the centres. It is clear that the global system established for GSETT could well provide the basis for an effective system under a comprehensive test ban treaty.

11 Both New Zealand and Australia have recently upgraded their seismic monitoring and data transmission equipment as a further part of their contribution to GSETT-2. Australia acted as one of the four international data centres for this experiment. The seismic arrays operated by Australia have the facility for enhancing weak signals by data processing techniques, which makes a major contribution to the global network's detection ability, particularly in the southern hemisphere.

12 The two countries were well placed to contribute to the experiment because of their extensive experience in using seismic detection to monitor nuclear tests. Both New Zealand and Australia have for many years been closely monitoring France's nuclear testing programme at Mururoa Atoll in the South Pacific. Scientists in New Zealand and Australia have accordingly developed considerable practical expertise in the seismic monitoring of underground nuclear tests of varying magnitude.

13 New Zealand's monitoring of explosions in French Polynesia, using a seismograph station in the Cook Islands, has demonstrated the particular sensitivity of such stations to tests in oceanic areas. This would be an important factor in a global monitoring network.

14 Based on this collective experience, it is the considered view of the Australian and New Zealand Governments that seismic monitoring offers a reliable means of verifying a CTBT. The successful conclusion of GSETT-2 will further strengthen confidence in the effectiveness of a global seismic monitoring and data transmission system down to a very low level.

Evasion

15 The possibility of evasion has been put forward as a reason to doubt that a CTBT could be adequately monitored. Various technical scenarios have been put forward for ways in which countries might evade detection, primarily through 'decoupled' explosions in underground cavities. However, the technology to attempt such evasion is unlikely to be available outside the existing nuclear weapons states, and the risk of detection would be extremely high and would increase with each test.

16 With in-country networks of seismographs to enhance the detection capability of the global network, it is likely that even the most elaborate precautions would not prevent the detection of explosions at levels as low as 1 kiloton. Attempts to evade a nuclear test ban would therefore be confined to a level at which the military advantages to be gained from clandestine explosions would be minimal and the chances of escaping detection would be extremely low.

Other Verification Techniques

17 While seismic detection would be a vital factor in the monitoring of a CTBT, verification need not depend on this alone. A network for monitoring airborne radiation, as proposed by Sweden, would provide valuable collateral support to a global seismic monitoring network. Satellite surveillance data would also help confirm international adherence to a CTBT.

18 A recent development has been the increased acceptance of on-site verification in other areas of arms control, following the precedent first established by the

INF Treaty. This could also be extended to verification of a nuclear test ban. The ratification of the protocols to the Threshold Test Ban Treaty and the Peaceful Nuclear Explosions Treaty has now set a further example for cooperation on verification procedures.

19 On-site verification, which is already widely accepted as an important component of arms control agreements, might also provide further assurance of compliance with a CTBT. The international disarmament process has advanced dramatically since the seismic monitoring network was first proposed, when national technical means were considered the only effective means of verifying compliance. Cooperation on measures for on-site verification, such as the placement of seismometers at possible test sites, would strongly reinforce a teleseismic verification system.

Wider Participation in Seismic Cooperation

20 In order to develop a global seismic monitoring capability down to a very low level it will be necessary to improve the coverage of seismic stations in Africa, South America and Antarctica. The involvement is therefore necessary of a wider group than is currently involved in the group of scientific experts (GSE) in the Conference on Disarmament.

Conclusions

21 In summary, New Zealand and Australia consider that there already exists compelling scientific evidence that a nuclear test ban is verifiable using technology currently available. The ongoing work of the Group of Scientific Experts is providing substantial technical corroboration for that view. The argument advanced by some nuclear testing states, that a nuclear test ban is not possible because it could not be verified, has consequently become increasingly difficult to sustain.

22 New Zealand and Australia consider that considerable progress has already been made towards the development of an adequate mechanism to verify a nuclear test ban. The ongoing work of the Group of Scientific Experts is important in this respect and it needs to continue its work with the benefit of a wider membership.

23 New Zealand and Australia welcomed the constructive discussion of verification issues at the Partial Test Ban Treaty Amendment Conference. The two countries had suggested that a significant achievement for the conference would be to:

- recognise the progress made towards a fully effective international verification system;

- endorse the efforts of the Group of Scientific Experts to demonstrate the technical feasibility of such a regime;

- call on more states to participate in the GSE to improve in particular coverage of seismic stations in Africa, South America, and Antarctica.

The widespread support for these general principles was encouraging. New Zealand and Australia believe that as a result of the discussions in New York there is greater international commitment to the important work on verification being carried out by the Group of Scientific Experts under the auspices of the Conference on Disarmament.

CONFERENCE ON DISARMAMENT

CD/1089
CD/NTB/WP/14
25 July 1991

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LETTER DATED 9 JULY 1991 FROM THE HEAD OF THE SWEDISH DELEGATION ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE TEXT OF A DRAFT COMPREHENSIVE TEST-BAN TREATY AND ITS ANNEXED PROTOCOLS

I have the honour to send you enclosed a draft CTB Treaty and its annexed protocols which will be introduced by the Delegation of Sweden on 25 July 1991. It will also be presented in the Ad Hoc Committee on a Nuclear Test Ban on that same day.

I should be grateful if it could be issued as an official document of the Conference and translated into all the official languages. It would be appreciated if the document could be available in all the official languages, dated on 25 July 1991 and numbered both as a CD document and as a Working Paper in the Ad Hoc Committee.

(Signed) Carl-Magnus Hyltenius
Ambassador
Head of the Swedish Delegation
to the Conference on Disarmament

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JUL 29 1991
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DRAFT COMPREHENSIVE NUCLEAR TEST-BAN TREATY

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DRAFT COMPREHENSIVE NUCLEAR TEST-BAN TREATY

The States Parties to this Treaty, hereinafter referred to as the "States Parties",

Convinced of the urgent need for an end to the nuclear arms race and the ultimate elimination of nuclear weapons,

Recalling the determination expressed by the Parties in the Preamble to the 1963 Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water to seek to achieve the discontinuance of all test explosions of nuclear weapons for all time, and to continue negotiations to this end,

Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures towards nuclear disarmament,

Urging the cooperation of all States in the attainment of this objective,

Convinced also that an end to nuclear testing by all States in all environments for all time is of fundamental importance to prevent the qualitative improvement and development of nuclear weapons and their further proliferation,

Have agreed as follows:

Article I

Basic Obligations

1. Each State Party undertakes to prohibit, to prevent, and not to carry out, in any environment, any test explosion of a nuclear explosive device.

2. Each State Party undertakes not to detonate anywhere any nuclear explosive device for peaceful purposes unless the States Parties have agreed on procedures for and controls of such nuclear explosions.

3. Each State Party undertakes, furthermore, to refrain from causing, encouraging, assisting, permitting or in any way participating in the carrying out anywhere of any nuclear explosion referred to in paragraphs 1 and 2 of this Article.

Article II

The Organization

1. The States Parties to the Treaty hereby establish a body hereinafter referred to as the "Organization" to achieve the objectives of the Treaty and to ensure the implementation of its provisions, including those for international verification of compliance with it, and to provide a forum for consultation and cooperation among the States Parties.

2. All States Parties shall be members of the Organization.

3. The seat of the Headquarters of the Organization shall be ...

4. The organs of the Organization shall be the Conference of the States Parties, the Executive Council and the Technical Secretariat.

5. The Conference of the State Parties is composed of all States Parties. It is the principal organ and oversees the implementation of, and the compliance with, the Treaty. It shall oversee the activities of the Executive Council and the Technical Secretariat.

6. The Executive Council, which is the executive organ of the Conference of the States Parties, shall in particular

- promote the effective implementation of, and compliance with, the Treaty;

- facilitate consultation among States Parties to resolve issues related to the Treaty, in particular to verification of compliance with its provisions;

- supervise the operation of the Technical Secretariat.

The Executive Council shall comprise twenty-five State Parties serving for a period of two years. The members of the Executive Council shall be elected by the Conference of the States Parties, with due regard given to an equitable political and geographical representation.

7. The Technical Secretariat shall assist States Parties, the Conference of the States Parties, and the Executive Council on issues of verification. It shall be headed by a Director-General. The Secretariat shall, inter alia,

- coordinate international cooperative arrangements to exchange seismological data, data on radionuclides in the atmosphere and other data relevant to the monitoring of compliance with the Treaty;

- conduct on-site monitoring and inspection at the invitation of a State Party, or at the request of the Executive Council;

- cooperate with the National Authorities of the States Parties to resolve uncertainties that a State Party may have about an event relevant to compliance with the Treaty.

8. The duties, functions and organization of the Conference of the States Parties, the Executive Council and the Technical Secretariat are further outlined in Protocol I.

Article III

National Implementation Measures

1. Each State Party undertakes to take any measures it considers necessary to prohibit and prevent any activity in violation of the provisions of the Treaty anywhere under its jurisdiction or control.

2. Each State Party shall inform the Organization established pursuant to Article II of this Treaty of the legislative and administrative measures taken to implement the Treaty.

3. In order to fulfil its obligations under the Treaty, each State Party shall designate or set up a National Authority and shall so inform the Organization upon entry into force of the Treaty for such a State Party. The National Authority shall serve as the national focal point for liaison with the Organization and with other States Parties.

4. Each State Party undertakes to cooperate in good faith with the Organization in the exercise of the functions of the Organization and, in particular, to provide assistance to the Technical Secretariat, including data reporting on a routine basis and in response to requests, and to provide assistance for on-site inspections, as provided for in this Treaty.

Article IV

Verification

1. Each State Party undertakes to cooperate in good faith to facilitate the verification of compliance with this Treaty to clarify any event which might cause concern to other States Parties to the Treaty through:

- an effective international exchange of seismological data;
- an effective international exchange of measurements on radionuclides in the atmosphere;
- additional relevant techniques as specified in Protocol II.

The arrangements for these international cooperative measures are laid down in Protocol II annexed to this Treaty.

Each State Party undertakes to establish the necessary facilities to participate in these cooperative measures and through its National Authority to establish the necessary communication channels with the Technical Secretariat.

These arrangements shall be operative on the entry into force of this Treaty.

2. Large non-nuclear explosions carried out by a State Party shall be conducted in accordance with provisions laid down in Protocol III.

3. The States Parties undertake to consult one another and to cooperate in good faith for the clarification of all events pertaining to matters relevant to compliance with this Treaty. Upon request from a State Party, the Technical Secretariat shall assist in this cooperation to facilitate the clarification of events observed. In accordance with this provision, each State Party undertakes:

- to provide the Technical Secretariat with any additional information it possesses that might assist in the interpretation of an event that may be of relevance to the Treaty which has occurred on its territory, or under its jurisdiction or control;

- to provide any relevant information, through the Technical Secretariat, in response to a request, by any other State Party.

4. Each State Party may conduct bilateral consultations with any other State Party on matters relevant to the Treaty, request information from any State Party, through the Technical Secretariat, on any events relevant to this Treaty occurring on the territory of that State or under its jurisdiction or control.

5. Each State Party may use national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law to verify compliance with the Treaty. Each State Party undertakes not to interfere with national technical means of verification of any other State Party.

6. If a State Party is unable to clarify the nature of an event through the measures specified in paragraphs 1 through 5 of this Article, each State Party is entitled to request, through the Executive Council, an on-site inspection on the territory of any other State Party for the purpose of ascertaining whether or not a specified event was a nuclear explosion.

7. The requesting State Party shall state the reasons for its request, including the evidence available. The requested State Party is under the obligation to comply with a request for an inspection. Such an inspection shall be conducted by the Technical Secretariat, and the result shall be reported to the Executive Council and all States Parties. Procedures for such inspections, including the rights and functions of the inspecting personnel, are laid down in Protocol III.

8. An on-site inspection carried out by the Technical Secretariat may also follow an invitation to the Executive Council by the State Party on whose territory the event has occurred.

Article V

Non-compliance

1. If a State Party considers that another State Party has failed to fulfil its obligations to cooperate in good faith to facilitate the verification of this Treaty, it may raise the issue in the Executive Council. If the matter

cannot be resolved in the Executive Council, it may be taken up in the Conference of the States Parties. The Conference of the States Parties shall take the necessary measures to ensure compliance with the Treaty and to redress and remedy any situation which contravenes the provisions of the Treaty.

2. In cases where a State Party fails to fulfil a request to take measures to redress a situation which gives rise to problems with regard to its compliance with the Treaty, the Conference of the States Parties may request that the State Party's rights and privileges under the Treaty be suspended until it undertakes the necessary action to conform with its obligations under the Treaty.

3. Any State Party which finds that any other State Party is acting in breach of obligations deriving from the provisions of the Treaty, may lodge a complaint with the Secretary-General of the United Nations. Such a complaint shall include all possible evidence confirming its validity, as well as a request for its consideration.

4. Each State Party undertakes to cooperate in good faith in carrying out any investigation which the Security Council may initiate in accordance with the provisions of the Charter of the United Nations on the basis of the complaint received by the Council.

5. The Secretary-General shall inform the States Parties of the results of the investigation. He shall further inform the Security Council of any indication that a State Party may have acted in breach of obligations under the Treaty and may request the Council to decide on measures necessary to ensure compliance with the Treaty.

Article VI

Privileges and Immunities

1. The States Parties to this Treaty shall grant privileges and immunities to the representatives of States Parties and the members of delegations to the Conference of the States Parties, the members of the Executive Council, the Director-General and the personnel of the Technical Secretariat in accordance with the Vienna Convention on Diplomatic Relations of 18 April 1961 in order to enable them to carry out the functions entrusted to them under this Treaty.

2. Provisions regarding privileges and immunities in connection with on-site inspections are contained in Protocol III.

3. The State Party in whose territory the Headquarters of the Organization is located shall, as soon as possible, conclude with the Organization a Headquarters Agreement covering privileges, exemptions and immunities.

Article VII

Annexes

The Protocols I, II and III to this Treaty constitute integral parts of the Treaty.

Article VIII

Amendments

1. At any time after the entry into force of this Treaty, any State Party may propose amendments to the Treaty or to any annexed Protocol. Any proposal for an amendment shall be communicated to the Depositary, who shall circulate it to all States Parties and seek their views on whether a conference should be convened to consider the proposal. If a majority, that shall not be less than twenty, of the States Parties so agree, the Depositary shall promptly convene a conference to which all States Parties shall be invited. The Conference may adopt amendments proposed, if a majority of the States Parties present and voting, including the nuclear-weapon States, so agree. Amendments shall enter into force for each Party accepting them upon their adoption by the Conference and thereafter for each remaining Party on the date of acceptance of the amendments by such a Party.

2. Proposals for amendments of provisions of a technical nature to be specified in Protocols I, II and III will be subject to a simplified amendment procedure conducted and decided by the Executive Council.

Article IX

Review of the Treaty

Five years after the entry into force of this Treaty, or earlier if it is requested by a majority of Parties to the Treaty by submitting a proposal to this effect to the Depositary, a conference of States Parties to the Treaty shall be held at ....., to review the operation of the Treaty, with a view to assuring that the purposes of the preamble and the provisions of the Treaty are being realized. Such review shall take into account any new scientific and technological developments relevant to the Treaty.

Article X

Entry into force

1. This Treaty shall be open to all States for signature. Any State which does not sign this Treaty before its entry into force in accordance with this Article may accede to it at any time.

2. This Treaty shall be subject to ratification by Signatory States.

3. This Treaty shall enter into force upon the deposit of instruments of ratification by forty Governments, including the nuclear-weapon States.

For the purposes of this Treaty, a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967.

4. For those States whose instruments of ratification or accession are deposited after the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

Article XI

Depositary

1. The Secretary-General of the United Nations shall be the Depositary of this Treaty and shall receive the instruments of ratification and instruments of accession.

2. The Depositary shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or of accession and the date of the entry into force of this Treaty and of any amendments thereto, any notice of withdrawal, and the receipt of other notices. He shall also inform the Security Council of the United Nations of any notice of withdrawal.

3. This Treaty shall be registered by the Depositary in accordance with Article 102 of the Charter of the United Nations.

Article XII

Duration and Withdrawal

This Treaty shall be of unlimited duration. In exercising its national sovereignty, each State Party shall have the right to withdraw from the Treaty, if it decides that extraordinary events, related to the provisions of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to the Depositary three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.

Article XIII

Official Languages

This Treaty, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send duly certified copies thereof to the Governments of the signatory and acceding States.

Article XIV

Signature

In witness whereof, the undersigned, duly authorized thereto, have signed this Treaty.

PROTOCOL I

The Organization

A. General Provisions

1. The Organization shall oversee the overall function of the Treaty and its verification arrangements and shall consist of the organs specified in Article III.

2. All States Parties to the Treaty shall be members of the Organization.

3. The cost of the Organization shall be borne by the States Parties in accordance with the United Nations scale of assessment.

B. The Conference of the States Parties

1. Each State Party shall have one representative in the Conference of the States Parties, who may be accompanied by alternates and advisers.

2. The Conference of the States Parties shall meet annually unless it decides otherwise.

3. The Conference of the States Parties shall take decisions on questions of procedure, including decisions to convene special sessions of the Conference, by a simple majority of the members present and voting. Decisions on matters of substance should be taken as far as possible by consensus. If consensus is not attainable when an issue comes up for decision, the Chairman shall defer any vote for 24 hours and during this period of deferment shall make every effort to facilitate achievement of consensus, and shall report to the Conference prior to the end of the period. If there is no possibility of achieving consensus at the end of 24 hours, the Conference shall take the decision by a two-thirds majority of members present and voting unless otherwise specified in the Treaty. When the issue arises as to whether or not the question is one of substance, that question shall be treated as one of substance unless otherwise decided by the Conference by the majority required for decisions on questions of substance.

C. The Executive Council

1. The Executive Council is responsible to the Conference of the States Parties. It shall carry out the powers and functions entrusted to it under the Treaty and its Protocols, as well as such functions delegated to it by the Conference of the States Parties. In so doing, it shall act in conformity with the recommendations, decisions and guidelines of the Conference of the States Parties and assure their continuous and proper implementation.

2. The Executive Council shall keep the overall operation of the Treaty and its verification arrangements under review to promote the effective implementation of and compliance with the Treaty. It shall facilitate

consultation among States Parties to resolve issues related to the Treaty, in particular to its verification, and supervise the operation of the Technical Secretariat.

3. The Executive Council shall decide on proposals for amendments to Protocols II and III of this Treaty on matters concerning the equipment and technical procedures to be used to verify compliance with the Treaty following proposals from a State Party or from the Technical Secretariat. An Advisory Board of international experts shall be established to provide scientific expertise on verification measures and to assist the Executive Council in assessing the value of new methods to be considered for the verification of this Treaty.

4. The Executive Council shall supervise the operation of the Technical Secretariat and therewith in particular:

- appoint its Director-General;

- decide on its annual budget;

- receive and review its reports submitted every three months and annually.

5. The Executive Council shall facilitate consultations among States Parties to resolve issues related to the Treaty, in particular to its verification. The functions of the Executive Council with regard to on-site inspections are laid down in Article V and Protocol III.

6. The Executive Council shall meet annually. Between sessions it shall meet as often as required to fulfil its functions. It shall elect its own Chairman.

7. Decisions by the Executive Council on (to be specified) are taken by simple majority.

D. The Technical Secretariat

1. A Technical Secretariat shall be established to assist States Parties, the Conference of the States Parties and the Executive Council on issues of verification. The Technical Secretariat shall, inter alia,

- coordinate international cooperative arrangements to exchange seismological data, data on radionuclides in the atmosphere and other data relevant to the monitoring of the Treaty;

- conduct on-site monitoring and inspection at the invitation of a State Party or at the request of the Executive Council;

- cooperate with the National Authorities of the States Parties to resolve uncertainties regarding compliance with the Treaty.

2. The Technical Secretariat shall coordinate the operation of the global seismological network and in particular

- operate the International Data Centre to compile, analyse and report on seismic data;

- supervise the operation of participating seismological stations and their reporting;

- provide technical assistance in the installation and operation of seismological stations;

- compile and assess results and experience of the operation of the seismological network.

3. The Technical Secretariat shall coordinate the operation of the network for global surveillance of radionuclides in the atmosphere and in particular

- operate the International Data Centre to compile, analyse and report data on radionuclides in the atmosphere;

- supervise stations which are monitoring radionuclides in the atmosphere;

- provide techical assistance in the installation and operation of monitoring stations;

- compile and assess results and experiences of the operation of a network for global surveillance of radionuclides in the atmosphere.

4. Upon request,the Technical Secretariat shall assist States Parties in using satellite observations to clarify seismic and other events in relation to this Treaty and

- ensure access to relevant, publicly available satellite data;

- process and analyse satellite data to facilitate the interpretation and clarification of seismic events.

The Technical Secretariat shall also compile, analyse and report on hydroacoustic signals in the ocean and other relevant data provided by States Parties to facilitate the verification of this Treaty.

5. The Technical Secretariat shall receive, compile and report to all States Parties any additional information that a State Party may provide to assist in the interpretation of an event which has occurred on its territory.

The Technical Secretariat shall forward requests for information made by any State Party to any other State Party on any event relevant to this Treaty occurring on the territory of the latter State. The Technical Secretariat shall receive, compile and report on any information received in response to such requests.

6. The functions of the Technical Secretariat with regard to on-site inspections are laid down in Article IV and Protocol III.

7. Upon invitation through the Executive Council, the Technical Secretariat shall conduct on-site monitoring of large non-nuclear explosions, exceeding 100 tons TNT equivalent, and report the result of such observations to the States Parties. The Technical Secretariat shall also compile and distribute a monthly list of reported non-nuclear explosions, exceeding 10 tons TNT equivalent.

8. The Technical Secretariat is authorized to propose to the Executive Council amendments of a technical nature to Protocols II and III of this Treaty. The Technical Secretariat is also authorized, in consultation with the National Authorities of States Parties, to make modifications in the Operational Manuals of the verification systems referred to in Protocols II and III. Such modifications shall be reported to the Executive Council.

9. The Technical Secretariat shall comprise a Director-General, appointed by the Executive Council for a period of four years, who shall be its Head and Chief Administrative Officer and such scientific, technical and other personnel as may be required. The Director-General may be reappointed for one further term, but not thereafter. Only citizens of States Parties shall serve as Inspectors or as other members of the professional and clerical staff of the Technical Secretariat.

10. The Technical Secretariat shall, on an annual basis, submit its budget proposal to the Executive Council. The Technical Secretariat shall further report to the Executive Council on its activities every three months, and annually.

PROTOCOL II

Global Monitoring System

Part I

International Exchange of Seismological Data

1. Each State Party to the Treaty undertakes to cooperate in good faith in an international exchange of seismological data to assist the States Parties in the verification of the Treaty by providing additional technical information for their national assessment. These international cooperative measures include 50-100 high-quality designated seismological stations, including seismic arrays in participating countries and in other territories, efficient systems for the exchange of seismological data, and an International Data Centre. The operation of the system shall be coordinated by the Technical Secretariat and guided by the Operational Manual for International Exchange of Seismological Data.

2. Each State Party shall have the right to participate in the international exchange of seismological data by contributing data from one or more designated seismological stations and to receive all the seismological data made available through the international exchange. Each State Party should cooperate with the international exchange. Each State Party should cooperate with the international system through its National Authority. To ensure that seismological stations with the necessary geographical coverage will be incorporated in the exchange, the States listed in Table I have agreed to provide data from the stations specified in the same Table.

Each State Party participating in the international data exchange shall provide geographical coordinates, a description of the seismic noise and the geological site, and a description of the instrumentation of each designated station. Any changes in these data shall be reported immediately. Data on designated stations are collected, compiled and regularly reported to the States Parties by the Technical Secretariat.

In consultation with the States Parties, the Technical Secretariat shall identify the need for data from additional stations or from high-quality stations and how such needs should be met. The Technical Secretariat shall also provide technical assistance to establish, operate and maintain new seismic high-quality stations in regions of the world where there is a lack of such stations.

3. The seismological stations designated for participation in the international exchange shall have the basic equipment specified in the Operational Manual. These stations shall be operated, calibrated and maintained as specified in the Manual. Information on the operation and the calibration of the stations shall be sent regularly to the Technical Secretariat.

4. Seismological data from each designated station shall be reported routinely and on a regular basis through the appropriate National Authority. The seismological data to be reported, the reporting format and the time schedule are specified in the Operational Manual.

In addition to routinely submitted data, each State Party participating in the international data exchange shall provide any relevant seismological data from its designated stations which are requested through the International Data Centre by any other State Party. The procedures for making such requests and the format and time schedule for responding to them are laid down in the Operational Manual.

5. An International Data Centre shall be established by the Technical Secretariat. Easy and free access for representatives of all Parties to the Treaty shall be granted to all facilities of the International Data Centre.

6. The International Data Centre shall routinely receive all seismological data contributed to the international exchange by its participants, process these data, without interpreting them, distribute such data to all

participants within one week, store all data contributed by participants as well as the results of the processing at the Centre. The procedures to be used at the International Data Centre are laid down in the Operational Manual. The International Data Centre shall further coordinate requests for additional seismological data from one State Party to another Party and circulate data obtained as a result of such requests.

7. Each State Party is encouraged to assist in the assessment of the nature of the seismic events located by the International Data Centre by contributing any additional information available about events located in its own territory.

Table 1

State	Station
.....	.....
.....	.....
.....	.....

Part II

Surveillance of Radionuclides in the Atmosphere

1. Each State Party undertakes to cooperate in good faith in an international network for surveillance of radionuclides in the atmosphere. These international cooperative measures include 50-100 designated sampling stations for radionuclides in the atmosphere in participating States and in other territories, national or regional analysis laboratories, systems for the evaluation and exchange of these measurements, and the International Data Centre established for this purpose. The operation of the System shall be coordinated by the Technical Secretariat and guided by the Operational Manual for the Surveillance of Radionuclides in the Atmosphere.

2. Each State Party shall have the right to participate in the international surveillance of radionuclides in the atmosphere by contributing measurements of samples from one or more designated stations and to receive all the information made available through the international exchange. To ensure the necessary geographical coverage of sampling stations for radionuclides in the atmosphere, the States listed in Table 2 have agreed to provide measurements of samples from the stations specified in this Table.

Each State Party participating in the international surveillance shall provide geographical coordinates and a description of the instrumentation of each designated station as well as of the techniques applied in the laboratories carrying out the analysis. Any changes in these data shall be reported immediately. Data on designated stations and laboratories are collected, compiled and regularly reported by the Technical Secretariat.

3. The sampling stations and the analysis laboratories for radionuclides in the atmosphere designated for participation in the international exchange shall have the basic equipment specified in the Operational Manual for the Surveillance of Radionuclides in the Atmosphere. These stations and laboratories shall be operated and maintained as specified in this Manual. Information about the operation and maintenance of the stations and laboratories shall be sent to the Technical Secretariat on a regular basis.

4. Measurements of radionuclides in the atmosphere from each designated station shall be reported routinely and on a regular basis through the appropriate National Authority. The measurements of samples to be reported, the reporting format and time schedule are specified in the Operational Manual. A State Party shall cooperate in good faith with the International Data Centre to clarify any technical question regarding data reported.

In addition to routinely submitted measurements, each State Party participating in the international measurements exchange shall provide any relevant measurements from its designated stations requested through the International Data Centre by any State Party. The procedures for making such requests and the format and time schedule for responding are laid down in the Operational Manual.

5. An International Data Centre for the exchange of measurements on radionuclides in the atmosphere shall be established by the Technical Secretariat. Easy and free access for representatives of all States Parties shall be granted to all facilities of the International Data Centre.

The International Data Centre shall receive all measurements on radionuclides in the atmosphere contributed to the international exchange by its participants and routinely analyse and process these measurements according to established procedures. For observed release of radionuclides in the atmosphere, the time and location of the source shall be evaluated. In this analysis, relevant wind trajectories obtained from meteorological data shall be used. The results of the analysis shall be distributed to all participants within one week, and the records thereof be kept at the Centre. The procedures to be used in the analysis at the International Data Centre are laid down in the Operational Manual.

The International Data Centre shall also coordinate requests for additional measurements from one State Party to another and circulate the information obtained as a result of such requests.

Table 2

State	Station
.....	.....
.....	.....
.....	.....

Part III

Use of Satellite Data

1. In order to assist in the interpretation of seismic and other events relevant to this Treaty and to facilitate the use by States Parties of satellite images, the Technical Secretariat shall ensure access to relevant data obtained from available satellite systems.

2. The Technical Secretariat shall assist States Parties in utilizing satellite data by establishing and operating a Satellite Image Processing Centre. This Centre shall have the capability to store available satellite data and to process such data according to specified procedures at the request of any State Party. The operation of the Satellite Image Processing Centre shall be guided by the Operational Manual for Satellite Data Processing.

3. Each State party operating an unclassified satellite system which provides images with a coverage and resolution relevant to this Treaty undertakes to make such image data available on terms to be agreed with the Technical Secretariat.

Part IV

Other Methods

1. The Technical Secretariat shall facilitate cooperation among States Parties in using additional means of verification which any State Party may find useful. The Technical Secretariat shall receive, compile and circulate any data relevant to the verification of this Treaty which any State Party makes available.

2. The Technical Secretariat shall, in consultation with the States Parties, provide technical assistance to establish, operate and maintain such additional means of verification.

3. Additional means of verification of compliance with this Treaty might include hydroacoustic measurements in the sea and acoustic and ionospheric measurements in the atmosphere.

PROTOCOL III

Procedures for On-Site Inspections and Monitoring

Part I

Procedures for International On-Site Inspections

1. The basic rules for verification through on-site inspection are laid down in Article IV of this Treaty.

2. The purpose of an international on-site inspection is purely fact-finding, and the Team of International Inspectors (hereinafter referred to as the Inspection Team) dispatched by the Technical Secretariat shall not make any assessment as to the nature of the event inspected. The Inspection Team shall present a factual report of the observations made during the inspection. As far as possible, this report shall represent the consensus view of the participating experts. If and where consensus cannot be achieved, the report shall reflect the views of all the participating inspectors.

3. The Inspection Team shall begin its inspection in the specified area to be inspected not later than seven days after it receives a request for inspection from the Executive Council. This area must be continuous and not exceed 1,000 km^2 or a distance of 50 km in any direction. An inspection may last for a maximum time period of seven days after the arrival of the Inspection Team at the point of entry in the territory of the State Party to be inspected.

4. During an international on-site inspection, the Inspection Team shall be entitled to

- conduct visual inspections of the area from the air and on the ground;

- conduct inspections of the area using infrared means of observation from the air and on the ground;

- take photographs in the visual and infrared parts of the spectrum from the air and on the ground;

- measure radioactive radiation in the atmosphere above the area, at ground level and in water;

- conduct temporary seismological measurements in the area.

5. The Director-General of the Technical Secretariat shall notify the inspected State Party not less than [12] hours prior to the planned arrival of the Inspection Team at the point of entry. Simultaneously the members of the Executive Council shall be informed about the request.

6. An international on-site inspection shall be carried out by the personnel and experts of the Technical Secretariat. The rules and detailed procedures for such on-site inspections are laid down in the Manual for International On-Site Inspections. The Inspectors shall be selected taking into account available expertise and must not include any national of the requesting State Party. The Inspection Team shall be headed by an officer from the Technical

Secretariat and contain ..... additional Inspectors. The Inspection Team shall further comprise the necessary technicians, interpreters and secretaries provided by the Technical Secretariat. The total number of an Inspection Team shall not exceed .....

At all times while the inspecting personnel are in the territory of the State Party to be inspected, their persons, property, personal baggage, archives and documents as well as their temporary official and living quarters shall be accorded the same privileges and immunities as provided in Articles 22, 23, 24, 29, 30, 31, 34, and 36 of the Vienna Convention on Diplomatic Relations to the persons, property, personal baggage, archives and documents of diplomatic agents as well as to the premises of diplomatic missions and private residences of diplomatic agents.

Without prejudice to their privileges and immunities, it shall be the duty of the inspecting personnel to respect the laws and regulations of the State in the territory of which the inspection is to be carried out, in so far as such laws and regulations do not impede in any way whatsoever the proper exercising of the rights and functions provided for by the Treaty and this Protocol.

Part II

Procedures for On-Site Monitoring of Large Non-Nuclear Explosions

1. In order to avoid misinterpretation of large non-nuclear explosions, the Party conducting such an explosion must follow specified rules and procedures. For an explosion with a yield exceeding 100 tons TNT equivalent or any group of explosions with an aggregate yield exceeding the same limit, the State Party conducting such an explosion shall notify the Technical Secretariat not later than 60 days prior to the event. This notification shall include

- the time, location, purpose and yield of the explosion;
- a full description of the event, including a timetable for loading the charge;
- any other relevant information that a State Party wishes to submit.

2. A State Party conducting an explosion with a yield exceeding 10 tons but not exceeding 100 tons of TNT equivalent shall provide the Technical Secretariat with information on such an event not later than seven days after the explosion.

3. Personnel from the Technical Secretariat shall monitor on-site the preparations for, and the detonation of, any non-nuclear explosion with a yield exceeding 100 tons TNT equivalent.

Based on the information provided by the State Party conducting the explosion, the Director-General of the Technical Secretariat shall decide from what date observers shall follow the preparation work. The on-site observation shall include the conduct of the explosion and observation of its result. The detailed rules and procedures are laid down in the Operational Manual for On-Site Monitoring of Large Non-Nuclear Explosions.

4. The personnel conducting the on-site monitoring shall be allowed to follow the preparation of the explosion, including the loading of the charge or charges. They should further be allowed to take pictures and to make measurements of radioactive radiation in the air and in water in the vicinity of the event, prior to and after the explosion.

5. The Technical Secretariat shall establish a factual report of each large non-nuclear explosion monitored and submit the report to all States Parties and to the Executive Council.

6. On-site monitoring of a large non-nuclear explosion shall be carried out by the Technical Secretariat using its own personnel and experts provided by States Parties, at the request of the Director-General of the Technical Secretariat. The observers shall be selected taking into account available expertise and must not include any national of the requesting State Party. The Inspection Team shall be headed by an officer from the Technical Secretariat and contain ..... additional observers. The Inspection Team shall further compromise the necessary technicians, interpreters and secretaries provided by the Technical Secretariat in accordance with the need in each particular case. The total number of such support personnel shall not exceed .....

At all times while the inspecting personnel are in the territory of the State Party to be inspected or in a territory under the jurisdiction or control of that State Party, their persons, property, personal baggage, archives and documents as well as their temporary official and living quarters shall be accorded the same privileges and immunities as provided in Articles 22, 23, 24, 29, 30, 31, 34 and 36 of the Vienna Convention on Diplomatic Relations to the persons, property, personal baggage, archives and documents of diplomatic agents as well as to the premises of diplomatic missions and private residences of diplomatic agents.

Without prejudice to their privileges and immunities, it shall be the duty of the inspecting personnel to respect the laws and regulations of the State in whose territory the inspection is to be carried out, in so far as such laws and regulations do not impede in any way whatsoever the proper exercising of the rights and functions provided for by the Treaty and this Protocol.

OPERATIONAL MANUALS

In addition to the Treaty and its Protocols the following Operational Manuals should be established to guide the operation of the various components of the verification system:

- Operational Manual for International Exchange of Seismological Data;
- Operational Manual for the Surveillance of Radionuclides in the Atmosphere;
- Operational Manual for Satellite Data Processing;
- Operational Manual for International On-site Inspections;
- Operational Manual for On-Site Observations of Large Non-Nuclear Explosions.

These manuals are not an integral part of the Treaty and can be changed by the Technical Secretariat in consultation with States Parties. The Executive Council shall be informed of changes in the Operational Manuals.

CONFERENCE ON DISARMAMENT

CD/1089*
CD/NTB/WP.14
31 July 1991

Original: ENGLISH

LETTER DATED 9 JULY 1991 FROM THE HEAD OF THE SWEDISH DELEGATION ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE TEXT OF A DRAFT COMPREHENSIVE TEST-BAN TREATY AND ITS ANNEXED PROTOCOLS

I have the honour to send you enclosed a draft CTB Treaty and its annexed protocols which will be introduced by the Delegation of Sweden on 25 July 1991. It will also be presented in the Ad Hoc Committee on a Nuclear Test Ban on that same day.

I should be grateful if it could be issued as an official document of the Conference and translated into all the official languages. It would be appreciated if the document could be available in all the official languages, dated on 25 July 1991 and numbered both as a CD document and as a Working Paper in the Ad Hoc Committee.

(Signed) Carl-Magnus Hyltenius
Ambassador
Head of the Swedish Delegation
to the Conference on Disarmament

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* Re-issued for technical reasons.

GE.91-62113/3475B

DRAFT COMPREHENSIVE NUCLEAR TEST-BAN TREATY

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DRAFT COMPREHENSIVE NUCLEAR TEST-BAN TREATY

The States Parties to this Treaty, hereinafter referred to as the "States Parties",

Convinced of the urgent need for an end to the nuclear arms race and the ultimate elimination of nuclear weapons,

Recalling the determination expressed by the Parties in the Preamble to the 1963 Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water to seek to achieve the discontinuance of all test explosions of nuclear weapons for all time, and to continue negotiations to this end,

Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures towards nuclear disarmament,

Urging the cooperation of all States in the attainment of this objective,

Convinced also that an end to nuclear testing by all States in all environments for all time is of fundamental importance to prevent the qualitative improvement and development of nuclear weapons and their further proliferation,

Have agreed as follows:

Article I

Basic Obligations

1. Each State Party undertakes to prohibit, to prevent, and not to carry out, in any environment, any test explosion of a nuclear explosive device.

2. Each State Party undertakes not to detonate anywhere any nuclear explosive device for peaceful purposes unless the States Parties have agreed on procedures for and controls of such nuclear explosions.

3. Each State Party undertakes, furthermore, to refrain from causing, encouraging, assisting, permitting or in any way participating in the carrying out anywhere of any nuclear explosion referred to in paragraphs 1 and 2 of this Article.

Article II

The Organization

1. The States Parties to the Treaty hereby establish a body hereinafter referred to as the "Organization" to achieve the objectives of the Treaty and to ensure the implementation of its provisions, including those for international verification of compliance with it, and to provide a forum for consultation and cooperation among the States Parties.

2. All States Parties shall be members of the Organization.

3. The seat of the Headquarters of the Organization shall be ...

4. The organs of the Organization shall be the Conference of the States Parties, the Executive Council and the Technical Secretariat.

5. The Conference of the State Parties is composed of all States Parties. It is the principal organ and oversees the implementation of, and the compliance with, the Treaty. It shall oversee the activities of the Executive Council and the Technical Secretariat.

6. The Executive Council, which is the executive organ of the Conference of the States Parties, shall in particular

- promote the effective implementation of, and compliance with, the Treaty;

- facilitate consultation among States Parties to resolve issues related to the Treaty, in particular to verification of compliance with its provisions;

- supervise the operation of the Technical Secretariat.

The Executive Council shall comprise twenty-five State Parties serving for a period of two years. The members of the Executive Council shall be elected by the Conference of the States Parties, with due regard given to an equitable political and geographical representation.

7. The Technical Secretariat shall assist States Parties, the Conference of the States Parties, and the Executive Council on issues of verification. It shall be headed by a Director-General. The Secretariat shall, inter alia,

- coordinate international cooperative arrangements to exchange seismological data, data on radionuclides in the atmosphere and other data relevant to the monitoring of compliance with the Treaty;

- conduct on-site monitoring and inspection at the invitation of a State Party, or at the request of the Executive Council;

- cooperate with the National Authorities of the States Parties to resolve uncertainties that a State Party may have about an event relevant to compliance with the Treaty.

8. The duties, functions and organization of the Conference of the States Parties, the Executive Council and the Technical Secretariat are further outlined in Protocol I.

Article III

National Implementation Measures

1. Each State Party undertakes to take any measures it considers necessary to prohibit and prevent any activity in violation of the provisions of the Treaty anywhere under its jurisdiction or control.

2. Each State Party shall inform the Organization established pursuant to Article II of this Treaty of the legislative and administrative measures taken to implement the Treaty.

3. In order to fulfil its obligations under the Treaty, each State Party shall designate or set up a National Authority and shall so inform the Organization upon entry into force of the Treaty for such a State Party. The National Authority shall serve as the national focal point for liaison with the Organization and with other States Parties.

4. Each State Party undertakes to cooperate in good faith with the Organization in the exercise of the functions of the Organization and, in particular, to provide assistance to the Technical Secretariat, including data reporting on a routine basis and in response to requests, and to provide assistance for on-site inspections, as provided for in this Treaty.

Article IV

Verification

1. Each State Party undertakes to cooperate in good faith to facilitate the verification of compliance with this Treaty to clarify any event which might cause concern to other States Parties to the Treaty through:

- an effective international exchange of seismological data;

- an effective international exchange of measurements on radionuclides in the atmosphere;

- additional relevant techniques as specified in Protocol II.

The arrangements for these international cooperative measures are laid down in Protocol II annexed to this Treaty.

Each State Party undertakes to establish the necessary facilities to participate in these cooperative measures and through its National Authority to establish the necessary communication channels with the Technical Secretariat.

These arrangements shall be operative on the entry into force of this Treaty.

2. Large non-nuclear explosions carried out by a State Party shall be conducted in accordance with provisions laid down in Protocol III.

3. The States Parties undertake to consult one another and to cooperate in good faith for the clarification of all events pertaining to matters relevant to compliance with this Treaty. Upon request from a State Party, the Technical Secretariat shall assist in this cooperation to facilitate the clarification of events observed. In accordance with this provision, each State Party undertakes:

- to provide the Technical Secretariat with any additional information it possesses that might assist in the interpretation of an event that may be of relevance to the Treaty which has occurred on its territory, or under its jurisdiction or control;

- to provide any relevant information, through the Technical Secretariat, in response to a request, by any other State Party.

4. Each State Party may use national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law to verify compliance with the Treaty. Each State Party undertakes not to interfere with national technical means of verification of any other State Party.

5. If a State Party is unable to clarify the nature of an event through the measures specified in paragraphs 1 through 5 of this Article, each State Party is entitled to request, through the Executive Council, an on-site inspection on the territory of any other State Party for the purpose of ascertaining whether or not a specified event was a nuclear explosion.

6. The requesting State Party shall state the reasons for its request, including the evidence available. The requested State Party is under the obligation to comply with a request for an inspection. Such an inspection shall be conducted by the Technical Secretariat, and the result shall be reported to the Executive Council and all States Parties. Procedures for such inspections, including the rights and functions of the inspecting personnel, are laid down in Protocol III.

7. An on-site inspection carried out by the Technical Secretariat may also follow an invitation to the Executive Council by the State Party on whose territory the event has occurred.

Article V

Non-compliance

1. If a State Party considers that another State Party has failed to fulfil its obligations to cooperate in good faith to facilitate the verification of this Treaty, it may raise the issue in the Executive Council. If the matter cannot be resolved in the Executive Council, it may be taken up in the Conference of the States Parties. The Conference of the States Parties shall take the necessary measures to ensure compliance with the Treaty and to redress and remedy any situation which contravenes the provisions of the Treaty.

2. In cases where a State Party fails to fulfil a request to take measures to redress a situation which gives rise to problems with regard to its compliance with the Treaty, the Conference of the States Parties may request that the State Party's rights and privileges under the Treaty be suspended until it undertakes the necessary action to conform with its obligations under the Treaty.

3. Any State Party which finds that any other State Party is acting in breach of obligations deriving from the provisions of the Treaty, may lodge a complaint with the Secretary-General of the United Nations. Such a complaint shall include all possible evidence confirming its validity, as well as a request for its consideration.

4. Each State Party undertakes to cooperate in good faith in carrying out any investigation which the Security Council may initiate in accordance with the provisions of the Charter of the United Nations on the basis of the complaint received by the Council.

5. The Secretary-General shall inform the States Parties of the results of the investigation. He shall further inform the Security Council of any indication that a State Party may have acted in breach of obligations under the Treaty and may request the Council to decide on measures necessary to ensure compliance with the Treaty.

Article VI

Privileges and Immunities

1. The States Parties to this Treaty shall grant privileges and immunities to the representatives of States Parties and the members of delegations to the Conference of the States Parties, the members of the Executive Council, the Director-General and the personnel of the Technical Secretariat in accordance with the Vienna Convention on Diplomatic Relations of 18 April 1961 in order to enable them to carry out the functions entrusted to them under this Treaty.

2. Provisions regarding privileges and immunities in connection with on-site inspections are contained in Protocol III.

3. The State Party in whose territory the Headquarters of the Organization is located shall, as soon as possible, conclude with the Organization a Headquarters Agreement covering privileges, exemptions and immunities.

Article VII

Annexes

The Protocols I, II and III to this Treaty constitute integral parts of the Treaty.

Article VIII

Amendments

1. At any time after the entry into force of this Treaty, any State Party may propose amendments to the Treaty or to any annexed Protocol. Any proposal for an amendment shall be communicated to the Depositary, who shall circulate it to all States Parties and seek their views on whether a conference should be convened to consider the proposal. If a majority, that shall not be less than twenty, of the States Parties so agree, the Depositary shall promptly convene a conference to which all States Parties shall be invited. The Conference may adopt amendments proposed, if a majority of the States Parties present and voting, including the nuclear-weapon States, so agree. Amendments shall enter into force for each Party accepting them upon their adoption by the Conference and thereafter for each remaining Party on the date of acceptance of the amendments by such a Party.

2. Proposals for amendments of provisions of a technical nature to be specified in Protocols I, II and III will be subject to a simplified amendment procedure conducted and decided by the Executive Council.

Article IX

Review of the Treaty

Five years after the entry into force of this Treaty, or earlier if it is requested by a majority of Parties to the Treaty by submitting a proposal to this effect to the Depositary, a conference of States Parties to the Treaty shall be held at ....., to review the operation of the Treaty, with a view to assuring that the purposes of the preamble and the provisions of the Treaty are being realized. Such review shall take into account any new scientific and technological developments relevant to the Treaty.

Article X

Entry into force

1. This Treaty shall be open to all States for signature. Any State which does not sign this Treaty before its entry into force in accordance with this Article may accede to it at any time.

2. This Treaty shall be subject to ratification by Signatory States.

3. This Treaty shall enter into force upon the deposit of instruments of ratification by forty Governments, including the nuclear-weapon States. For the purposes of this Treaty, a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967.

4. For those States whose instruments of ratification or accession are deposited after the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

Article XI

Depositary

1. The Secretary-General of the United Nations shall be the Depositary of this Treaty and shall receive the instruments of ratification and instruments of accession.

2. The Depositary shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or of accession and the date of the entry into force of this Treaty and of any amendments thereto, any notice of withdrawal, and the receipt of other notices. He shall also inform the Security Council of the United Nations of any notice of withdrawal.

3. This Treaty shall be registered by the Depositary in accordance with Article 102 of the Charter of the United Nations.

Article XII

Duration and Withdrawal

This Treaty shall be of unlimited duration. In exercising its national sovereignty, each State Party shall have the right to withdraw from the Treaty, if it decides that extraordinary events, related to the provisions of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to the Depositary three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.

Article XIII

Official Languages

This Treaty, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send duly certified copies thereof to the Governments of the signatory and acceding States.

Article XIV

Signature

In witness whereof, the undersigned, duly authorized thereto, have signed this Treaty.

PROTOCOL I

The Organization

A. General Provisions

1. The Organization shall oversee the overall function of the Treaty and its verification arrangements and shall consist of the organs specified in Article III.

2. All States Parties to the Treaty shall be members of the Organization.

3. The cost of the Organization shall be borne by the States Parties in accordance with the United Nations scale of assessment.

B. The Conference of the States Parties

1. Each State Party shall have one representative in the Conference of the States Parties, who may be accompanied by alternates and advisers.

2. The Conference of the States Parties shall meet annually unless it decides otherwise.

3. The Conference of the States Parties shall take decisions on questions of procedure, including decisions to convene special sessions of the Conference, by a simple majority of the members present and voting. Decisions on matters of substance should be taken as far as possible by consensus. If consensus is not attainable when an issue comes up for decision, the Chairman shall defer any vote for 24 hours and during this period of deferment shall make every effort to facilitate achievement of consensus, and shall report to the Conference prior to the end of the period. If there is no possibility of achieving consensus at the end of 24 hours, the Conference shall take the decision by a two-thirds majority of members present and voting unless otherwise specified in the Treaty. When the issue arises as to whether or not the question is one of substance, that question shall be treated as one of substance unless otherwise decided by the Conference by the majority required for decisions on questions of substance.

C. The Executive Council

1. The Executive Council is responsible to the Conference of the States Parties. It shall carry out the powers and functions entrusted to it under the Treaty and its Protocols, as well as such functions delegated to it by the Conference of the States Parties. In so doing, it shall act in conformity with the recommendations, decisions and guidelines of the Conference of the States Parties and assure their continuous and proper implementation.

2. The Executive Council shall keep the overall operation of the Treaty and its verification arrangements under review to promote the effective implementation of and compliance with the Treaty. It shall facilitate

consultation among States Parties to resolve issues related to the Treaty, in particular to its verification, and supervise the operation of the Technical Secretariat.

3. The Executive Council shall decide on proposals for amendments to Protocols II and III of this Treaty on matters concerning the equipment and technical procedures to be used to verify compliance with the Treaty following proposals from a State Party or from the Technical Secretariat.

4. An Advisory Board of international experts shall be established to provide scientific expertise on verification measures and to assist the Executive Council in assessing the value of new methods to be considered for the verification of this Treaty.

5. The Executive Council shall supervise the operation of the Technical Secretariat and therewith in particular:

- appoint its Director-General;

- decide on its annual budget;

- receive and review its reports submitted every three months and annually.

6. The Executive Council shall facilitate consultations among States Parties to resolve issues related to the Treaty, in particular to its verification. The functions of the Executive Council with regard to on-site inspections are laid down in Article IV and Protocol III.

7. The Executive Council shall meet annually. Between sessions it shall meet as often as required to fulfil its functions. It shall elect its own Chairman.

8. Decisions by the Executive Council on (to be specified) are taken by simple majority.

D. The Technical Secretariat

1. A Technical Secretariat shall be established to assist States Parties, the Conference of the States Parties and the Executive Council on issues of verification. The Technical Secretariat shall, inter alia,

- coordinate international cooperative arrangements to exchange seismological data, data on radionuclides in the atmosphere and other data relevant to the monitoring of the Treaty;

- conduct on-site monitoring and inspection at the invitation of a State Party or at the request of the Executive Council;

- cooperate with the National Authorities of the States Parties to resolve uncertainties regarding compliance with the Treaty.

2. The Technical Secretariat shall coordinate the operation of the global seismological network and in particular

- operate the International Data Centre to compile, analyse and report on seismic data;
- supervise the operation of participating seismological stations and their reporting;
- provide technical assistance in the installation and operation of seismological stations;
- compile and assess results and experience of the operation of the seismological network.

3. The Technical Secretariat shall coordinate the operation of the network for global surveillance of radionuclides in the atmosphere and in particular

- operate the International Data Centre to compile, analyse and report data on radionuclides in the atmosphere;
- supervise stations which are monitoring radionuclides in the atmosphere;
- provide techical assistance in the installation and operation of monitoring stations:
- compile and assess results and experiences of the operation of a network for global surveillance of radionuclides in the atmosphere.

4. Upon request,the Technical Secretariat shall assist States Parties in using satellite observations to clarify seismic and other events in relation to this Treaty and

- ensure access to relevant, publicly available satellite data;
- process and analyse satellite data to facilitate the interpretation and clarification of seismic events.

The Technical Secretariat shall also compile, analyse and report on hydroacoustic signals in the ocean and other relevant data provided by States Parties to facilitate the verification of this Treaty.

5. The Technical Secretariat shall receive, compile and report to all States Parties any additional information that a State Party may provide to assist in the interpretation of an event which has occurred on its territory.

The Technical Secretariat shall forward requests for information made by any State Party to any other State Party on any event relevant to this Treaty occurring on the territory of the latter State. The Technical Secretariat shall receive, compile and report on any information received in response to such requests.

6. The functions of the Technical Secretariat with regard to on-site inspections are laid down in Article IV and Protocol III.

7. Upon invitation through the Executive Council, the Technical Secretariat shall conduct on-site monitoring of large non-nuclear explosions, exceeding 100 tons TNT equivalent, and report the result of such observations to the States Parties. The Technical Secretariat shall also compile and distribute a monthly list of reported non-nuclear explosions, exceeding 10 tons TNT equivalent.

8. The Technical Secretariat is authorized to propose to the Executive Council amendments of provisions of a technical nature laid down in Protocols II and III of this Treaty. The Technical Secretariat is also authorized, in consultation with the National Authorities of States Parties, to make modifications in the Operational Manuals of the verification systems referred to in Protocols II and III. Such modifications shall be reported to the Executive Council.

9. The Technical Secretariat shall comprise a Director-General, appointed by the Executive Council for a period of four years, who shall be its Head and Chief Administrative Officer and such scientific, technical and other personnel as may be required. The Director-General may be reappointed for one further term, but not thereafter. Only citizens of States Parties shall serve as Inspectors or as other members of the professional and clerical staff of the Technical Secretariat.

10. The Technical Secretariat shall, on an annual basis, submit its budget proposal to the Executive Council. The Technical Secretariat shall further report to the Executive Council on its activities every three months, and annually.

PROTOCOL II

Global Monitoring System

Part I

International Exchange of Seismological Data

1. Each State Party to the Treaty undertakes to cooperate in good faith in an international exchange of seismological data to assist the States Parties in the verification of the Treaty by providing additional technical information for their national assessment. These international cooperative measures include 50-100 high-quality designated seismological stations, including seismic arrays in participating countries and in other territories, efficient systems for the exchange of seismological data, and an International Data Centre. The operation of the system shall be coordinated by the Technical Secretariat and guided by the Operational Manual for International Exchange of Seismological Data.

2. Each State Party shall have the right to participate in the international exchange of seismological data by contributing data from one or more designated seismological stations and to receive all the seismological data made available through the international exchange. Each State Party should cooperate with the international exchange. Each State Party should cooperate with the international system through its National Authority. To ensure that seismological stations with the necessary geographical coverage will be incorporated in the exchange, the States listed in Table I have agreed to provide data from the stations specified in the same Table.

Each State Party participating in the international data exchange shall provide geographical coordinates, a description of the seismic noise and the geological site, and a description of the instrumentation of each designated station. Any changes in these data shall be reported immediately. Data on designated stations are collected, compiled and regularly reported to the States Parties by the Technical Secretariat.

In consultation with the States Parties, the Technical Secretariat shall identify the need for data from additional stations or from high-quality stations and how such needs should be met. The Technical Secretariat shall also provide technical assistance to establish, operate and maintain new seismic high-quality stations in regions of the world where there is a lack of such stations.

3. The seismological stations designated for participation in the international exchange shall have the basic equipment specified in the Operational Manual. These stations shall be operated, calibrated and maintained as specified in the Manual. Information on the operation and the calibration of the stations shall be sent regularly to the Technical Secretariat.

4. Seismological data from each designated station shall be reported routinely and on a regular basis through the appropriate National Authority. The seismological data to be reported, the reporting format and the time schedule are specified in the Operational Manual.

In addition to routinely submitted data, each State Party participating in the international data exchange shall provide any relevant seismological data from its designated stations which are requested through the International Data Centre by any other State Party. The procedures for making such requests and the format and time schedule for responding to them are laid down in the Operational Manual.

5. An International Data Centre shall be established by the Technical Secretariat. Easy and free access for representatives of all Parties to the Treaty shall be granted to all facilities of the International Data Centre.

6. The International Data Centre shall routinely receive all seismological data contributed to the international exchange by its participants, process these data, without interpreting them, distribute such data to all participants within one week, store all data contributed by participants as well as the results of the processing at the Centre. The procedures to be used at the International Data Centre are laid down in the Operational Manual. The International Data Centre shall further coordinate requests for additional seismological data from one State Party to another Party and circulate data obtained as a result of such requests.

7. Each State Party is encouraged to assist in the assessment of the nature of the seismic events located by the International Data Centre by contributing any additional information available about events located in its own territory.

Table 1

State	Station
.....	.....
.....	.....
.....	.....

Part II

Surveillance of Radionuclides in the Atmosphere

1. Each State Party undertakes to cooperate in good faith in an international network for surveillance of radionuclides in the atmosphere. These international cooperative measures include 50-100 designated sampling stations for radionuclides in the atmosphere in participating States and in other territories, national or regional analysis laboratories, systems for the evaluation and exchange of these measurements, and the International Data Centre established for this purpose. The operation of the System shall be coordinated by the Technical Secretariat and guided by the Operational Manual for the Surveillance of Radionuclides in the Atmosphere.

The International Data Centre shall also coordinate requests for additional measurements from one State Party to another and circulate the information obtained as a result of such requests.

Table 2

State	Station
.....	.....
.....	.....
.....	.....

Part III

Use of Satellite Data

1. In order to assist in the interpretation of seismic and other events relevant to this Treaty and to facilitate the use by States Parties of satellite images, the Technical Secretariat shall ensure access to relevant data obtained from available satellite systems.

2. The Technical Secretariat shall assist States Parties in utilizing satellite data by establishing and operating a Satellite Image Processing Centre. This Centre shall have the capability to store available satellite data and to process such data according to specified procedures at the request of any State Party. The operation of the Satellite Image Processing Centre shall be guided by the Operational Manual for Satellite Data Processing.

3. Each State party operating an unclassified satellite system which provides images with a coverage and resolution relevant to this Treaty undertakes to make such image data available on terms to be agreed with the Technical Secretariat.

Part IV

Other Methods

1. The Technical Secretariat shall facilitate cooperation among States Parties in using additional means of verification which any State Party may find useful. The Technical Secretariat shall receive, compile and circulate any data relevant to the verification of this Treaty which any State Party makes available.

2. The Technical Secretariat shall, in consultation with the States Parties, provide technical assistance to establish, operate and maintain such additional means of verification.

3. Additional means of verification of compliance with this Treaty might include hydroacoustic measurements in the sea and acoustic and ionospheric measurements in the atmosphere.

PROTOCOL III

Procedures for On-Site Inspections and Monitoring

Part I

Procedures for On-Site Inspections

1. The basic rules for verification through on-site inspection are laid down in Article IV of this Treaty.

2. The purpose of an international on-site inspection is purely fact-finding, and the Team of International Inspectors (hereinafter referred to as the Inspection Team) dispatched by the Technical Secretariat shall not make any assessment as to the nature of the event inspected. The Inspection Team shall present a factual report of the observations made during the inspection. As far as possible, this report shall represent the consensus view of the participating experts. If and where consensus cannot be achieved, the report shall reflect the views of all the participating inspectors.

3. The Inspection Team shall begin its inspection in the specified area to be inspected not later than seven days after it receives a request for inspection from the Executive Council. This area must be continuous and not exceed 1,000 km^2 or a distance of 50 km in any direction. An inspection may last for a maximum time period of seven days after the arrival of the Inspection Team at the point of entry in the territory of the State Party to be inspected.

4. During an international on-site inspection, the Inspection Team shall be entitled to

- conduct visual inspections of the area from the air and on the ground;
- conduct inspections of the area using infrared means of observation from the air and on the ground;
- take photographs in the visual and infrared parts of the spectrum from the air and on the ground:
- measure radioactive radiation in the atmosphere above the area, at ground level and in water;
- conduct temporary seismological measurements in the area.

5. The Director-General of the Technical Secretariat shall notify the inspected State Party not less than [12] hours prior to the planned arrival of the Inspection Team at the point of entry. Simultaneously the members of the Executive Council shall be informed about the request.

6. An international on-site inspection shall be carried out by the personnel and experts of the Technical Secretariat. The rules and detailed procedures for such on-site inspections are laid down in the Manual for International On-Site Inspections. The Inspectors shall be selected taking into account available expertise and must not include any national of the requesting State Party. The Inspection Team shall be headed by an officer from the Technical Secretariat and contain ..... additional Inspectors. The Inspection Team shall further comprise the necessary technicians, interpreters and secretaries provided by the Technical Secretariat. The total number of an Inspection Team shall not exceed .....

At all times while the inspecting personnel are in the territory of the State Party to be inspected, their persons, property, personal baggage, archives and documents as well as their temporary official and living quarters shall be accorded the same privileges and immunities as provided in Articles 22, 23, 24, 29, 30, 31, 34, and 36 of the Vienna Convention on Diplomatic Relations to the persons, property, personal baggage, archives and documents of diplomatic agents as well as to the premises of diplomatic missions and private residences of diplomatic agents.

Without prejudice to their privileges and immunities, it shall be the duty of the inspecting personnel to respect the laws and regulations of the State in the territory of which the inspection is to be carried out, in so far as such laws and regulations do not impede in any way whatsoever the proper exercising of the rights and functions provided for by the Treaty and this Protocol.

Part II

Procedures for On-Site Monitoring of Large Non-Nuclear Explosions

1. In order to avoid misinterpretation of large non-nuclear explosions, the Party conducting such an explosion must follow specified rules and procedures. For an explosion with a yield exceeding 100 tons TNT equivalent or any group of explosions with an aggregate yield exceeding the same limit, the State Party conducting such an explosion shall notify the Technical Secretariat not later than 60 days prior to the event. This notification shall include

- the time, location, purpose and yield of the explosion;
- a full description of the event, including a timetable for loading the charge;
- any other relevant information that a State Party wishes to submit.

2. A State Party conducting an explosion with a yield exceeding 10 tons but not exceeding 100 tons TNT equivalent shall provide the Technical Secretariat with information on such an event not later than seven days after the explosion.

3. Personnel from the Technical Secretariat shall monitor on-site the preparations for, and the detonation of, any non-nuclear explosion with a yield exceeding 100 tons TNT equivalent.

Based on the information provided by the State Party conducting the explosion, the Director-General of the Technical Secretariat shall decide from what date observers shall follow the preparation work. The on-site observation shall include the conduct of the explosion and observation of its result. The detailed rules and procedures are laid down in the Operational Manual for On-Site Monitoring of Large Non-Nuclear Explosions.

4. The personnel conducting the on-site monitoring shall be allowed to follow the preparation of the explosion, including the loading of the charge or charges. They should further be allowed to take pictures and to make measurements of radioactive radiation in the air and in water in the vicinity of the event, prior to and after the explosion.

5. The Technical Secretariat shall establish a factual report of each large non-nuclear explosion monitored and submit the report to all States Parties and to the Executive Council.

6. On-site monitoring of a large non-nuclear explosion shall be carried out by the Technical Secretariat using its own personnel and experts provided by States Parties, at the request of the Director-General of the Technical Secretariat. The observers shall be selected taking into account available expertise. The Monitoring Team shall be headed by an officer from the Technical Secretariat and contain ..... additional observers. The Monitoring Team shall further compromise the necessary technicians, interpreters and secretaries provided by the Technical Secretariat in accordance with the need in each particular case. The total number of such support personnel shall not exceed .....

At all times while the monitoring personnel are in the territory of the State Party to be inspected or in a territory under the jurisdiction or control of that State Party, their persons, property, personal baggage, archives and documents as well as their temporary official and living quarters shall be accorded the same privileges and immunities as provided in Articles 22, 23, 24, 29, 30, 31, 34 and 36 of the Vienna Convention on Diplomatic Relations to the persons, property, personal baggage, archives and documents of diplomatic agents as well as to the premises of diplomatic missions and private residences of diplomatic agents.

Without prejudice to their privileges and immunities, it shall be the duty of the monitoring personnel to respect the laws and regulations of the State in whose territory the inspection is to be carried out, in so far as such laws and regulations do not impede in any way whatsoever the proper exercising of the rights and functions provided for by the Treaty and this Protocol.

OPERATIONAL MANUALS

In addition to the Treaty and its Protocols the following Operational Manuals should be established to guide the operation of the various components of the verification system:

- Operational Manual for International Exchange of Seismological Data;
- Operational Manual for the Surveillance of Radionuclides in the Atmosphere;
- Operational Manual for Satellite Data Processing;
- Operational Manual for International On-site Inspections;
- Operational Manual for On-Site Observations of Large Non-Nuclear Explosions.

These manuals are not an integral part of the Treaty and can be changed by the Technical Secretariat in consultation with States Parties. The Executive Council shall be informed of changes in the Operational Manuals.